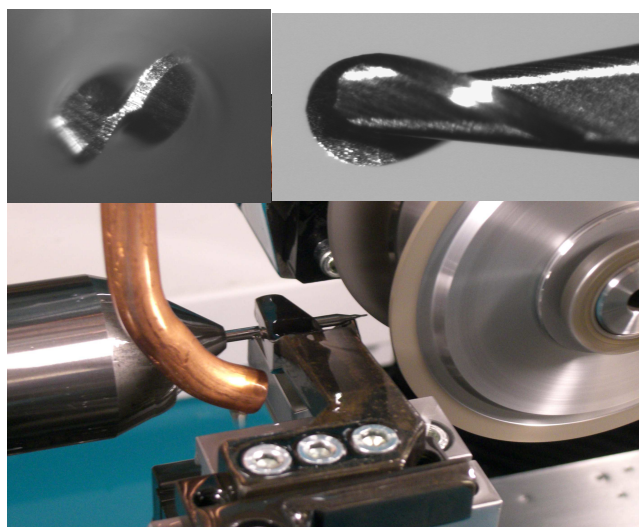











## Ballnose Endmill Ø0.4 Z2

### A1-212

Microtools can easily be ground with the appropriate setup for clamping - double support and floating clamp on shank - and the appropriate set of wheels. As long as the tool is held concentric within its V-Holder and the wheels keep their corner geometry, large batches of standard endmills can be manufactured (up to 300 pieces per palette). The polyvalent adjustability of the double support - linear and rotational adjustment - allows a perfect alignment of the V-Holder with respect to the shank axis. The W20 clamping finally has the functionality of a driving dog and to keep the x-position. The radiusaxisinterpolation can be executed with limited rotation of C-axis or fix C-Position, if the geometry of the support



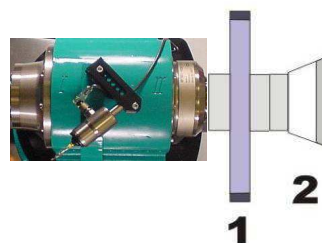
### 1. Cycletime for Production

Tool specifications					
Diameter 0.4 mm, Cutting edges 2, Length 1.2 mm, Helix 30 deg Material HM					
Operations					
Feed [mm/Min]	2000	150	50	150	150
Power [kW]		4	2	1	1
Cutting feed [m/s]		24	24	24	24
Used wheels					
Grinding time [s]	15	32	34	28	28
Total cycle time	2 Min 16				

The mentioned cycle times are indicative. The material to be ground, different grinding wheels or other coolants can influence the cycle times considerably.

### 2. Used Grinding Wheels

- 1 Ø100 1A1 B2 D25
- 2 Ø75 11V9 D25



### 3. Machine and Software Requirements

- Machines: 5 axes CNC grinders : SIRIUS HPM, NORMA CFG
- Control: Fanuc 160i
- Coolant: Synthetic Oil, pressure 6 - 7 bar
- Software: Quinto 4.2

responsible engineer: OP,19.2.07

[www.schneeberger.ch](http://www.schneeberger.ch)

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